

AMERICAN VETERINARY REVIEW,

OCTOBER, 1883.

ORIGINAL ARTICLES.

THE HORSE'S FOOT.

BY A. ZUNDEL.

(Continued from page 244)

CARTILAGINOUS QUITTOR—Continued.

The operation may become complicated by a variety of attendant and accessory *circumstances*. Among these are, the opening of the articular capsules; the wounding of the anterior lateral ligament of the articulation; the ossification of the fibro-cartilage; caries of the os pedis; and the alteration of the coronary band and of the reticular tissue.

The *opening of the articular capsule*, either during the operation, or by ulcerative process, is not so serious an accident as it was originally thought to be. Still, however, it requires some attention. It only become dangerous when the ulceration is accompanied by serious disorganization, and especially when it is associated with purulent arthritis. (Renault, Hurtrel, D'Arboval, Bernard). It is treated by simple pressure, camphorated paste, a little corrosive sublimate mixed with starch, or better, with Egyptiacum ointment.

The *wound of the ligaments* has also been considered a very serious accident, which, according to Girard, cripples an animal permanently. But Lafosse thinks this an exaggerated notion,

and claims to have witnessed the radical recovery of animals after the necrosis and sloughing of the ligament.

If *ossification of the cartilage* is discovered during the operation, the removal of all the unossified portion is first proceeded with, in order to prevent a recurrence of the disease. The extirpation of the *osteocartilaginous* portion is then effected either with a small drawing knife, or the gouge, or the bone forceps. The removal is made as far as the ossification is found to be complete, the operator making sure that every portion of cartilage is thoroughly destroyed. If the ossification is but partial or irregular, the surgeon must be guided by the condition of the parts. When the entire cartilage has undergone ossification, its susceptibility to caries has ceased.

When *caries of the os pedis* exists, the part must be destroyed with the sage knife, the gouge, or the chisel, according to the existing conditions. But in this case, portions of the reticular structure require removal, of which, however, as little as possible should be destroyed.

It may happen that the *portion of the coronary band* covering the cartilage may be *destroyed*, either wholly or in part, either as an effect of the disease, or by accident during the operation. In the first case, if the entire band has been destroyed, there is nothing to be done. But in the other case, if any portions of it remain, care must be taken to insure their preservation, as they may supply the necessary elements for a new, healthy secretion of hoof, and the quarter may grow again, more solid and less deformed. If the wound of the coronary band consists merely in a simple division of limited extent, the wisest course will be to attempt to obtain union by immediate adhesion, or first intention, by bringing the edges of the incision together and maintaining the contact by careful dressing. When the *alteration of the reticular tissue* alone, is present, it is very essential to avoid the excision of the injured laminæ. It is, in fact, the better course to avoid wholly the use of sharp instruments, and to leave to the natural process of suppuration the removal of the disorganized parts. Renault having observed how their removal interfered with the reparative process, has often left them undisturbed,

even when their dark color and softened condition indicated the smallness of their chance of conservation. The success of the operation after a first dressing, has shown the wisdom of the plan of non-interference; they were found covered with a new layer of yellowish hoof; and D'Arboval has on several occasions observed the same results.

The dressing must be methodically and carefully applied. Done well, a dressing greatly assists in the recovery, while many, when badly performed, have been the cause of serious complications, which have greatly hindered the repairing process, and often, indeed, rendered a disease incurable, which need not to have been beyond remedy. In the application of the dressing, two points are important to consider; first, we must dress the subcutaneous wound, resulting from the separation of the skin and the extraction of the fibro-cartilage; the other, that of the sub-horned wound, produced by the removal of the portion of the quarter. Both are important, but the second requires the greater care, and is more difficult and more important than the former; any excess in the sanguineous circulation must be prevented, and excessive granulations must be kept under control. The dressing, then, must be somewhat compressive, without being excessively rigid, in order to obviate possible danger of excessive inflammation; not too loose and so soft as to allow hemorrhage, or the undue proliferation of granulations. It must be both supple and firm, and of an even and uniform pressure. The proper material is balls of oakum for the subcutaneous wound, and pads of the same material for the sub-horned, the first being moistened with alcohol, while the others are made dry.

It is in question whether we should aim to obtain immediate adhesive union of the wound resulting from the removal of the cartilage, or in other words, whether it is good treatment to introduce some material of dressing between the skin and the bottom of the wound. Here opinions vary. Our belief is, that this union is by no means easy to secure; and that the removal of the cartilage, more or less altered, prevents it at various points. Still, we must not raise the skin too much, and choosing a middle course between, only a small soft ball of oakum is now placed in

the deepest part of the wound, or a thin pad is placed between the two parts, sufficient to represent about the natural form of the part, being enough, however, to prevent the immediate reunion from taking place.

A light thin shoe having been prepared, adapted to assist the application of the dressing and its holding properly, it is put on with one of its branches cut off short on the side where the operation has been performed, while the other branch projects backwards beyond the heel, to support the rollers of the bandage of the dressing. Desplas had thought to turn up that long branch of the shoe in the shape of a hook to assist in holding the dressings. This is generally useless. Some veterinarians prefer to leave the animal unshod, but in that case, the bandage is more likely to slip off. The shoe must be put on while the animal is down, and before the application of the dressing. With some practitioners, that is the moment for the removal of the tourniquet or cord, which had been applied at the beginning of the operation in order to prevent the bleeding. This is an unnecessary precaution, and only renders the application of the dressing more difficult. First, balls of oakum are placed over the coronary band, then, upon the points of union of the preserved wall and of the podophyllous tissue, and then all over the wound. We must endeavor, as Renault says, to give the dressing a cylindrical form, or rather, according to Rey, hemispherical, after which the whole is covered with pads and rollers. These must be put on in abundance, the rollers passing above the branch of the shoe on the sound side, and running successively from above downwards, and generally from before backwards. Flat feet require special care in dressing, and the fore-feet are generally more difficult to dress than the hinder. When all is finished, the animal has to be watched for several days. Ordinarily, after the operation, there is abundant hemorrhage, occurring within some fifteen minutes, and oozing through the dressings. This requires no special attention, and generally ceases spontaneously, or by the pressure of the dressing, or by the use of the cold bath. If the dressing seems to be too tight, and the animal shows signs of acute pain, with strong reactive fever, it is not therefore nec-

sary to remove the dressing, but may be sufficient simply to loosen the bandage. The animal should be placed in a wide stall, or box, if possible, where he may move freely, and lie down easily; and he must be prevented from tearing off the dressing by the application of a neck cradle. A low diet is necessary for several days, in some instances mashes being the only food allowed. Still, a good appetite and lively condition are always good signs.

The interval of time which should be allowed to elapse between the operation and the removal of the first dressing, should be judged by the amount of pain which the animal seems to suffer; by the temperature of the atmosphere; and by the amount of liquid discharge found oozing from the wound and moistening the dressing which covers and protects it. Generally, the dressings should be disturbed as late and as seldom as possible. Circumstances will sometimes occur, however, which necessitate their removal earlier, as for example, the extreme heat of the weather; the extremely offensive odor proceeding from the diseased parts; and a sudden and evident increase of pain in the wound, without any known cause. Under these circumstances, which however, are of rather infrequent occurrence, it is sometimes necessary to remove the dressing as early as the third day, although at this time, as suppuration is not yet well established, the operation is quite painful, and may be accompanied by free hemorrhage. But if the weather is not excessively warm; or if the pain is not excessive; or the dressing remains dry on the outside, and matters seem to be generally in good condition, the better course is to wait from eight to ten days, before the dressing is renewed. Indeed, numerous cases are on record when a still longer period has been allowed to elapse, and the re-dressing has been deferred to the extent of three weeks, or longer. In any event, great caution must be exercised in the removal of the dressings, and the surgeon should be careful to have all his appliances ready in advance, in order that the wound may be exposed to the air for the shortest possible space of time. When exposed, the wound should be of a red color, with commencing granulations, and a temporary hoof, soft and whitish in appear-

ance, should be visible on the podophyllous tissue. A dressing is then applied of tincture of aloes, or a weak solution of iodine. At a later period the dressings are changed at intervals of about eight days, and an application is made of pulverized sulphate of copper, in order to facilitate the drying and hardening of the soft hoof. Baths of sulphate of iron, with a small portion of sulphate of copper, are of service in promoting and hastening the cicatrization.

About the thirtieth or fortieth day after the extirpation of the cartilage, the animal may be put to light work. But three or four months, if not a longer period, must elapse, before it will be safe to task him with heavy labor. Towards the end of the assigned term he should be fitted with a bar shoe, shortened on the side where the quittor has existed. If the dressing is skilfully applied and proper care is exercised, the diseased foot may be sufficiently protected, and the animal made to resume his work with safety.

In time, the portion of hoof secreted by the coronary band unites with that of the podophyllous tissue, and after a few months, no remains of the operation are visible. But if the coronary band has ulcerated; if the skin has been divided; if by contact of the firing iron, or application of caustics, it has been destroyed; the quarter then presents irregularities, and sometimes divisions, which may be of long continuance, and give rise to a lameness which may, perhaps, become permanent. This danger indicates the necessity of exercising the utmost skill and caution in operating, in order to avoid possible injuries to the coronary band.

Several *modifications* of the ordinary mode of operation have been proposed. Some have had for their principal object, the prevention of the extraction of the hoof, with a view of thus returning the animals to their work at the earliest period practicable. It is thus that Hazard, Junior, proposed to make a crucial incision upon the skin covering the fibro-cartilage; the four flaps being so dissected to expose it, and then removing it with the sage knife. In this process, the extirpation of the entire cartilage becomes extremely difficult without inflicting injury upon the lateral ligaments and the synovial capsules.

Pagnier has proposed to merely thin down the quarter, to make an incision in the skin along the superior border of the cartilage, and through this to remove the organ. But in this operation, however thin the hoof may be, it always interferes with the entire extirpation of the cartilage.

Bernard, following the idea of Lafosse, junior, who only removed the superior border of the wall, proposed a mode of proceeding which is principally useful in cases of separation of the hoof. Instead of removing the band of hoof parallel with the coronary bourlet, Bernard pared it down with the drawing-knife, the sage-knife, or the rasp, in order to make it as thin as possible, while avoiding the injury to the sensitive laminæ. This done, an incision is made along the coronary band, below it, destroying its union with the laminæ. At this step of the operation, the indications are the same as in the ordinary *modus operandi*, except that the coronary band being covered with a certain thickness of hoof, is less flexible. This, however, is easily removed, as soon as it becomes softened. The remaining steps of the operation are the same as in the ordinary, old way. That is to say, the posterior part of the cartilage being well defined, the sage-knife is used in the same manner. In this method, however, as the sage-knife works more flat-wise, there is less danger of wounding the ligaments or the synovial capsules. If any part of the cartilage remains near these organs, some care must be used in removing it, and it must be done by degrees, and in very small portions.

The advantages of this process are, 1st, the avoidance of extensive wounds, and of the extreme pain produced by the extirpation of the quarter. 2d, to keep the foot shod, and to allow the animal to resume his work as soon as the first pain has subsided, which may occur at quite a considerable interval in advance of the perfect cicatrization of the wound. 3d, to avoid long and frequently-repeated dressings.

In this method, however, the quarter left intact sometimes interferes with the operation, and the excision of the cartilage is more difficult, being only practicable, indeed, in cases where there is a separation of the wall.

Mallet has modified the method of Bernard, so that, instead of thinning down the band of hoof, he only applies the rasp upon the quarter, and thins down with it all that portion which is extirpated in the process of Renault, and availing himself also, of the drawing and sage-knife. The remaining details of the operation are like those of the ordinary processes. An objection to this mode is that it can be put in practice only in cases where there is already a separation of the wall. It is objectionable from its tendency to weaken the foot too much, by interfering with the firm and solid adjustment of the shoe, as well as retarding its application to the hoof.

GLANDERS IN ILLINOIS.

(Reprint from the Report of the Illinois Board of Health.)

(Continued from page 251.)

Clinical History of Four Cases of Glanders, furnished by Dr. R. M. Trumbower, Veterinary Surgeon, Sterling, Ill.

Was requested, on May 31, 1882, by Mr. Joseph Detwiller, residing three miles east of Sterling, Whiteside county, Ill., to call and examine his horses. The following abstracts from case book will explain their condition, &c.:

No. 1.—Bay horse, nine years old, bought of Mr. Harding early in the spring; presented enlargement of the left submaxillary lymphatic glands, and a viscid and purulent discharge from the nostril of the corresponding side.

No. 2.—Bay horse, four years old; swelling along the course of the lymphatics; tumefaction and tenderness of the right side of the cheek, together with considerable enlargement of the submaxillary lymphatics. Does not eat well, and has considerable fever.

No. 3.—Roan mare, seven years old; slight discharge from both nostrils; small nodular circumscribed tumors along the upper lip, on the right side of the nose. No enlargement of the submaxillary lymphatics.

No. 4.—Grey gelding, twelve or fifteen years old; does not eat well; has several small, circumscribed, nodular tumors on the upper lip, and on the side of the face. No enlargement of the submaxillary lymphatics.

Treatment :—Prescribed arsenical tonics and alteratives. On June 3rd, found :

No. 1 had several small glandular nodules appearing on the nasal septum; losing flesh rapidly.

No. 2 had swelling on the right side of the face, increasing, and several small, circumscribed tumors had made their appearance.

No. 3 had several of the nodular tumors, becoming soft; opened one of them and cauterized the cavities.

No. 4. The tumors on the lip had formed abscesses, which were opened, and more abscesses found in process of formation; the submaxillary lymphatics on the left side now also were somewhat enlarged. The abscesses were cauterized.

Internal treatment continued, and prescribed nasal injection of a weak solution of chloride zinc, to be used on horse No. 1, daily.

On June 5th, all four cases about the same, except No. 1, which now manifested unmistakable symptoms of glanders.

On June 10th No. 1 was ordered to be destroyed, together with his harness, halter, &c., and to be buried; all of which was immediately carried out by the owner.

No. 2. The submaxillary lymphatic glands of the right side enlarged to the size of a hen's egg, very sensitive, no evidence of suppuration: small tumors on the right side had now undergone suppuration and rupture; the latter were cauterized. Prescribed ungt. hydrarg. biniodid. to be applied to the enlarged submaxillary glands.

No. 3. Ulcers presenting a healthy granulation; very slight enlargement of the right submaxillary lymphatic glands.

No. 4. Ulcers doing well; glands about the same as on the third of June.

Visited again on the 14th, 19th and 27th, and found all gradually improving, except No. 2, which I considered so badly

affected by true glanders that I did not want to treat him any longer. The owner requested me to take him to my own stable to treat him; but I refused to do so.

Accompanied by Mr. Detwiller, I saw this horse again on the Conway farm, on the 13th of March, 1883. Mr. Detwiller and myself urged Mr. Conway to kill the horse, upon my statement that he was glandered, and that he could never recover from the disease. The nose, lips and submaxillary space were enormously swollen: the nasal cavities studded over with ulcers, and, owing to the swelling, the horse was unable to eat. Mr. Conway refused to kill him, stating that the swelling was all due to decaying teeth, and that he could yet effect a cure of the horse. At that same time, I also examined two other horses, then on the Conway farm, and informed Mr. Conway and his family that these two horses were infected with glanders, and that if Mr. Conway would not kill them, he should at least keep them in a stable separate from his other horses. He laughed at me, saying, "They have only a slight cold."

One of these horses I condemned on the 2nd of April, and he was shot on the 6th of the same month. The other horse was condemned by Dr. N. H. Paaren on the 13th, and was shot on the 14th of April. The Detwiller horse was shot on the 30th of March, by order of the physicians who attended Mr. Wellington Conway, who meanwhile had become diseased with glanders himself.

*Clinical History of Two Fatal Cases of Contagious Glanders
(Equinia Glandulosa) in the Human Subject.*

BY GEO. W. REMAGE, M.D. of Coleta, Ill.

On Sunday, March 11th, I was called to see George Conway, aged 17 years and 23 days, son of Wellington Conway, a farmer, living about a mile and a half from Coleta, Genesee township, Whiteside County, Ill.

He had considerable fever, complained of headache, and there was a diffused tumefaction on the forehead over the right frontal sinus. His symptoms resembled those of catarrhal fever, and an epidemic of that kind was at that time prevailing in this part of the country.

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On March 12th, the symptoms were aggravated ; the swelling of the frontal region had increased. The parents believed that the disease was erysipelas ; but discoloration, &c., as in that disease, were wanting. There was no discharge from the nose.

On March 13th, the case passed into the hands of Robt. McPherson, M.D., who informed me that the swelling of the forehead had increased and extended to the nose, cheeks and lips. The eyelids were also much swollen, and were closed. The glands on the left side of the neck were much swollen.

I saw the boy again on Tuesday, March 20, and found pustules, bullæ and tubercles on various parts of the body and limbs. Gangrene had also set in on the face, cheeks and forehead, which parts seemed completely infiltrated with pus. The tubercles and pustules in some places began to break and discharge ; and a profuse purulent discharge came from the nose. There was also an excessive perspiration of an offensive odor present. Respiration was labored ; the voice was lost ; the action of the heart was rapidly failing. From the beginning the patient preferred to rest in a prone position, and was very restless from pain in the head. About the 20th of March, he preferred a supine position. He seemed to have his full senses, but from the beginning and until the case became very much aggravated, he could speak only in a whisper. About March 20th, coma ensued, and this became gradually more profound, until he passed away on the next day. He was buried on March 22d.

On March 23d, the father, Wellington Conaway, aged 45 years, was taken ill. In fact, the day before, at the burial of his son, he complained of being unwell. Robt. McPherson, M.D., who was called in, diagnosed pleurisy, and treated the case as such until March 30th.

On March 29th, I had an interview with Dr. Taylor, and apprised him of my suspicion that this case was one of glanders ; my belief being based on the fact that several running sores had appeared on the body and limbs of the patient. I saw the case on the 30th, in company with Dr. Segur, a partner of Dr. Taylor. On the 29th, a hard, diffused swelling had appeared over the left eyebrow. The tubercles and pustules which had ap-

peared on the body and limbs, varied in size, some of them being as large as filberts. They were breaking down here and there, and the discharge was purulent, bloody and ichorous on the 30th.

On Sunday, April 1st, Drs. Taylor, McPherson, Freas and Remage met in consultation, and all agreed that the case was one of glanders. On this day the swelling on the forehead had much increased, and an aqueous fluid was sweating out from it. His mind was now wandering, with occasional lucid intervals; the voice was now husky, and the fever had assumed a low typhoid type. He complained of no pain, and said he felt quite comfortable. Up to this time there had been no nasal discharge; the eyelids were not infiltrated, and his eyes stared wide open.

On April 2nd, in the afternoon, dissolution was evidently rapidly approaching; there was now present a copious discharge from the nose of a characteristic purulent, tenacious and sticky or gluey nature. Coma had appeared and was increasing. The excrements were passed involuntarily, and there now was, as in the case of the son, an excessive perspiration, of a very offensive odor; in fact, the most horrible stench pervaded the room occupied by the patient, who died on April 2nd.

It is believed that, by attending in a very ceaseless manner upon his son, the father contracted the disease from him.

Official Statement.

Entered in the Book of Records of the Town Board of Health of Genesee Township, Whiteside County, Illinois.

COLETA, WHITESIDE COUNTY, ILL., April 14, 1883.

The undersigned, N. H. Paaren, M. D., State Veterinarian, representing the STATE BOARD OF HEALTH, by virtue of a special appointment, dated Springfield, Ill., April 11, 1883, by the said BOARD, has this day, after a careful survey and inspection, conducted during the 13th and 14th of the present month, advised the sanitary measures hereinafter stated, to be carried out by the Town Board of Health of Genesee Township, Whiteside County, Illinois; viz:—

1st. That the Town Board of Health cause the dwelling-house occupied by the Conaway family, in the township and

county aforesaid, to be immediately vacated, and a thorough cleansing and disinfection instituted and carried out under the supervision of a physician.

2nd. That five of the horses owned and kept by the Conaway family, be immediately appraised, destroyed and buried deeply in the ground, distant forty rods from the public highway.

3d. That the whole of the stables in which the said five horses were kept, together with the harness, halters and stable utensils, be appraised and burned.

4th. That all of the fencing, together with the fence-posts, for a distance of 400 feet along each side of the public highway, also the fencing around the barn-yard, and all the loose boards and railing, and the watering-trough, be appraised and burned.

5th. That all the hitching-posts and railing on both sides of the streets of the village of Coleta, as well as the hitching-posts and railing adjacent to the churches of said village, be removed forthwith and destroyed.

6th. That six horses remaining on the Conaway farm, besides eight horses owned by neighboring farmers, and three horses owned by three different parties in the village of Coleta, be kept secluded within enclosures, during sixty days, or longer, if found necessary, from date; that the owners be prohibited from selling or otherwise disposing of the same during such period; and that they be examined every tenth day by Dr. M. R. Trumbower, veterinary surgeon, of Sterling, Ill. This for the reason that these animals have been more or less exposed to contagion.

All the above measures have been recommended because of the existence of glanders among the horses owned by the late Wellington Conaway, who, together with his son George Conaway, died from glanders or true *equinia*.

N. H. PAAREN, M.D.,
State Veterinarian.

In conclusion, I may further state that, while glanders and farcy may hereafter develop in some of the animals, now kept secluded under surveillance, in Genesee Township, and thus continue to be a source of contamination to both man and beast,—this township is not the only one in which the said disease at present ex-

ists. Immediately outside the limits of the township are said to be fourteen horses, kept by one owner, and which are said to be all very similarly affected, and may possibly prove to be another center of contagion. Whether these animals have contracted the disease from contact with glandered horses in this township, or elsewhere in this county, I am not prepared to state; but during my brief sojourn at Sterling my attention was called to a horse, which I examined and found affected with glanders.

I am in frequent receipt of letters and telegrams from various parts of the State, referring to the existence of glanders among horses; and the following two letters, just received, would seem to indicate the existence of a formidable scourge in that locality: viz:—

DU QUOIN, ILL., April 18, 1883.

N. H. PAAREN, M. D., State Veterinarian:

SIR:—There is a disease among horses in this county, creating quite an alarm among the people. Some judges pronounce it glanders.

Will you please come down and look after the matter? Come to Du Quoin, and you will be taken out from there. Please let me know by return mail what you will do, and when you will come.

Yours truly,

A. J. BROWN.

Two others have been received from the same locality, and also a telegram. The following letter has just been received from the Governor's office in Springfield, together with a communication from the private secretary of the Governor, saying that "if you can do so, the Governor thinks you had better go at once to Perry County." But what is the use of my going? I have no authority whatever to do anything there, because our present laws have no reference to horses. If it be glanders, raging at that rate, it may not be long before the loss of more human lives will be reported.

DU QUOIN, ILL., April 18, 1883.

GOVERNOR HAMILTON, SPRINGFIELD, ILL.,

DEAR SIR:—There is now on Paradise Prairie, in this county, a disease among horses creating quite an alarm among the peo-

ple. The disease is quite contagious, and should be looked after at once. Parties have written and telegraphed Paaren, Veterinarian, and can't hear from him. This matter is of great importance, and should be investigated and stopped at once.

Can't you have the Veterinarian come here at once and look into the matter. The people are very much alarmed, and if the matter is not investigated at once it will spread with disastrous results. It is already spreading. Please send Paaren here at once.

Yours truly,

H. W. S. WHEATLEY.

No doubt can exist of the necessity for prompt legislative action in regard to contagious disease among domestic animals: and it would almost seem proper that the medical authorities of this State, take the matter in hand *without delay*, to make it possible to accomplish anything through the present session of our Legislature. Trade and traffic of such diseased animals should be peremptorily prohibited, as by this source, together with the use of such animals on public highways, and by-ways, and in the towns and cities of the State, the disease is now continually spreading. When a man becomes convinced that his horses are affected with this loathsome and positively incurable disease, he will endeavor to recover as much as possible of their value, by trading and selling the same to unsuspecting and ignorant parties, who will bring them to other places, where perhaps no such disease is known. Thus there exists in this State, one of the most malignant and contagious diseases known, and with that a constant source of menace and danger to human life.

Hoping that the proceedings as stated in my present report will meet with the approval of the STATE BOARD OF HEALTH, I remain,

Your obedient servant,

N. H. PAAREN, M. D.
State Veterinarian.

The members are doubtless aware that, as a direct outcome of these investigations and of the efforts made under the authority of the BOARD, the so-called "Pleuro-Pneumonia Act" has been so amended by the General Assembly, just adjourned, as to make its provisions apply also to glanders; and the State Vete-

rinarian is now clothed with authority and has a sufficient appropriation to deal with this disease.

It may also be mentioned that a death occurred in St. Louis last month from this malady—the victim being a street-car driver said to have lately gone thither from some place in this State.

(*To be continued.*)

MELANOTIC TUMOR IN THE CŒCUM.

By R. H. HARRISON, D.V.S.

This subject was a brown gelding, eighteen years old, sixteen and one-half hands high, and weighing 1,480 pounds. He first came under observation several months before, suffering from a large incised wound of the breast; had been owned by a lumber firm for twelve years, and not esteemed a good worker and feeder.

After recovery from this accident he was sold and lost sight of until March 17th, when he was exposed for sale at auction.

Late in the afternoon was requested to visit him, and found him prostrate, gasping for breath, with an almost imperceptible pulse. No treatment was advised. He died a few minutes afterwards without a struggle.

The previous history, as near as could be ascertained, was that he had been driven 18 miles rapidly in the morning. Refused his dinner, and early in the afternoon, showed great distress, manifested by severe colics, getting up and down, pawing, etc.

A post-mortem examination was made the next day, and the following lesions were observed: Rigor mortis was well marked, and the animal was in good flesh.

Thorax.—The lungs were healthy, except along the inferior border, where emphysema was present. The heart was hypertrophied at the expense of its walls. It was fatty and the muscular structure was easily torn. Its weight when emptied of clotted blood was five and one-half pounds. The walls of the left ventricle were a quarter of an inch thick, and of the right, one

sixteenth of an inch thick, rendering the ventricular cavities much larger than normal.

Abdomen.—The liver and spleen were very fatty, paler than normal, and their tissue easily torn. The kidneys were fatty and showed on their superior face a number of ecchymotic spots. The bladder was healthy and contained a pint of healthy urine.

The small intestines and stomach were normal. The large intestines contained faecal matter colored black. The large mesenteric veins throughout were enormously distended with blood.

At the apex of the cœcum, a large growth was found, which proved to be a melanotic tumor undergoing degeneration. Its weight was four pounds. It was irregularly rounded, and by its size and position destroyed the outline of the apex. The *ingesta* was colored black, as well as the contents of the small colon.

The other organs and tissues were carefully examined, but no melanotic deposit could be found.

By inquiring of the original owner, it was learned that at times for the last six years this animal was noticed to pass black faeces.

Death was due in all probability to an interference in the abdominal circulation.

COMPLETE RUPTURE OF THE INFERIOR SESAMOID LIGAMENTS.

BY W. H. PENDRY.

On August 20th I was called to see a black horse about fifteen years old, driven by its owner to a cab, said to be lame in the near hind leg. The history of the case appeared to be as follows:

About five weeks previous, while being driven at an easy gait, a butcher's cart suddenly crossed in front and caused the horse to be thrown. On getting up he went somewhat lame; was taken home and given nearly five weeks rest. As the lameness appeared to have disappeared, he was put to work, being driven

about the city all day. On the following day, when about half the way home, on a trip of about five miles, he suddenly lifted his foot as if he had picked up a nail, which was at once searched for, but nothing found. The horse suffered great pain, so much so that he was with difficulty raised and got to the stable. On my arrival there, I found the horse in a loose box, resting his hindquarters against the side, thus entirely relieving the injured limb from any weight, and resisting any attempt made to move him from that position.

The ocular examination gave little or no satisfaction, on account of the bad light and the abundance of straw. I passed my hand down the leg, and when I reached the fetlock he flinched on the slightest pressure. Manipulation around those parts appeared to give considerable pain, and so I at once came to the conclusion that the trouble was there. However, on reflection, I considered the history demanded an examination per rectum, which I made, but found nothing abnormal.

I again examined the fetlock, and made a diagnosis of breaking down of the tendons of that region. I advised no treatment but stated that I would call on the following day, when I would advise him definitely what to do, giving him then to understand that the case was a very bad one, apparently hopeless, and that I might order the animal to be destroyed.

Considering that I had an interesting case, and wishing to give the owner all the advantage possible (it being his only means of earning a living), I consulted with Dr. Kemp, who visited the case with me the following day. On our arrival, we found the horse down, and unable to get up. I had him pulled out upon the floor of the stable, and turned over on his off side. Dr. Kemp then made a careful examination of the foot, and gave it as his opinion, that there was a breaking-down, with a possible complication of a fracture of the os coronæ, as he thought he could hear and feel some slight crepitation, although he stated it might be the result of an effusion into the joint.

On manipulation I could neither hear nor feel this to my satisfaction, but I could extend the fetlock joint to an angle that at once denoted a giving away of some of the tendons, and I

thought, possibly, that of the superficial flexor, as I could feel on rotating the foot, that the deep one appeared all right.

The owner was advised to have the animal destroyed, which was done, and the lower part of the leg secured for dissection, and, as arranged, left it at Dr. Kemp's office, stating I would return, but before I could do so, I found his anxiety had saved me the trouble, so that I have to give the result of the post-mortem in his own notes, taken at the time, which are as follows:

"Upon examination of the foot of the black horse, I find the trouble due to a separation of the glenoidal fibro-cartilage, which completes the superior articular surface of the *os coronæ* posteriorly, from its point of attachment to that bone. It is completely torn away from its place of insertion, and has taken with it the periosteum and superficial layer of the bone, leaving the cancellated structure exposed.

As this fibro-cartilage serves as a means of attachment to the superior superficial sesamoid ligament, and also acts itself as a powerful posterior ligament, sending several fibrous bands to the first phalanx, the severity of the injury is apparent. The synovial bursæ of the joint are much distended, and contain a large amount of bloody synovia." It will be seen that he makes no mention as to how he found the inferior attachment of the superficial flexor, but when I made enquiry on this point, he stated he could not remember. On looking at the specimen before me, I feel there was a possibility of its having given way.

OBSTRUCTION OF STERNO'S DUCT—OPERATION—RECOVERY.

BY WM. R. HOWE, V.S.

On the 20th of May I was called by a veterinary practitioner of this city to see a case which he said bothered him. I found a grey mare about seven years old with right parotid gland somewhat enlarged, and the duct of Steno, from the gland down, much enlarged. Where it rounded the angle of the jaw, it formed a dependent sac, but from there to what should be the outlet, no enlargement. After considerable manipulation I

diagnosed obstruction of the duct. To prove my diagnosis I punctured the most dependent part of the sac with a small trocar and obtained a small quantity of saliva. This, of course, relieved it. I recommended an operation, but the owner objected to it. I then recommended hot fomentations followed by mild stimulating liniment. This did no good, and on the 3d of June I was called again and found the part severely blistered. I again punctured, and again recommended an operation, but the owner said he would wait.

On the 6th of June, they decided to have an operation performed. After preparation by the administration of chloral hydrate $\frac{3}{4}$ jss. the mare was cast on the left side with the head somewhat elevated. After clipping the hair from the part a clean cut was made on outside of jaw, parallel with the duct, and reaching the highest part of the enlargement. In so doing it was found that the artery lay right in the way, so the cut was extended one inch lower down, exposing the enlarged duct. I now made a small incision longitudinally into the duct, and after allowing the imprisoned saliva to escape, I introduced a blunt probe, and, with one hand in the mouth (using a mouth speculum), worked the probe up the course of the duct until within half an inch of the papilla or natural opening. I could work it no further, so withdrawing it I substituted a long silver needle (which was made for this operation), armed with No. 4 carbolized catgut, and gently passing it through the duct as far as the channel was open, then through the muscle, in as near as possible the course of the duct, brought it out just anterior to the original opening.

Then by grasping the point with a strong pair of forceps and allowing my assistant to pull while I held my finger to the opening, allowing the flexible needle to slip over my finger like a rope over a pulley, in order to prevent laceration, the gut was brought out at the angle of the mouth and the two ends tied, thus forming a seton. This was kept in three days. The mare several times bit the gut in two and rubbed it out, but it was soon replaced by arming the same needle and passing it through, eye first, and grasping the seton from the mouth, and then withdrawing the needle. This was done without casting.

All this time the secretion was passing out of the external opening. Twenty-four hours after removing the seton, I tried the duct by forcing water through with a syringe, and found it clear. Had no trouble in closing the external opening.

Ten days after the operation, the mare went to work and has been well and hearty ever since. There is a slight enlargement of the dependant part of the duct and some scar from the blisters, but otherwise the mare is as sound as ever.

I cannot give any cause for the trouble. There was no calculus, and had been no swelling of the obstructed or obliterated part of the duct. I was assisted very much in the operation by Dr. Gable, M.D., who, I am glad to say, takes a hearty interest in veterinary matters.

P. S.—Since writing the above the enlargement has all passed away.

EDITORIAL.

VETERINARY COLLEGES IN THE UNITED STATES.

By the time the present number of the REVIEW reaches its readers, the different Veterinary Colleges throughout the United States will have opened their session of 1883-4.

It is certainly very gratifying to every veterinarian, every stockholder, every humanitarian, to know that veterinary science is so much more advanced in our midst than it was but a few years ago. We see now institutions like the *American Veterinary College* on a firm and lasting basis, having passed its infancy, its boyhood, indeed, and is now entering upon the good work of its manhood: its classes increasing yearly, and the methods of instruction, practical as well as theoretical, annually improved.

Its teachers, from long work and great experience, now study not how to conduct a college to secure a class, but only how to make more thorough the teaching to a class already too large for the building now occupied.

Other ventures are being made to establish similar schools, one in Pennsylvania, another in Massachusetts, among the rest.

Here the first things necessary are to secure the services of veterinarians of acknowledged ability, and men possessing executive and business qualities. These schools seem thus starting in the right direction, and we extend to them, in fact, to *all* honest and conscientious attempts, the right hand of fellowship, our best wishes, and whatever assistance our experience can give.

There is plenty of room for all these institutions, and it is to be hoped that they may one and all see the propriety of making a uniform course of three years' study, appointing a common examining board, graduating only men of ability, and not prostitute our noble profession by endeavoring simply to turn out each more abortions than the other. Let the *diplomas* from all our colleges be recognized as the proof of the learning and skill of their holders, and not monuments to the greed, cupidity and selfishness of "rival schools."

FOURTH INTERNATIONAL VETERINARY CONGRESS.

The fourth International Veterinary Congress was held in the Palais des Academies at Brussels, on the 10th of September. A large number of veterinarians from various parts of Europe and from America were present. Through a courteous invitation of the Secretary of the Committee of Organization, Prof. Wehenkel, the members present met on the Sunday previous at the Grand Hotel, where a most friendly entertainment took place, giving to every one present the opportunity of making each other's acquaintance.

On the day of meeting, in the absence of the Minister of the Interior, Mr. Somerhausen, General Director of the Department, presided at the organization and opening of the congress, while many of the celebrities of veterinary medicine were present.

On the first day the Constitution of the Congress was discussed and the various officers elected, Prof. Thiernes being unanimously selected president. The other officers consisted of five vice-presidents, a general secretary, and five adjuncts, corresponding to the number of subjects to be discussed.

The various questions brought before the Congress were:

1st. *The organization of the Veterinary Service*, with a committee composed of Messrs. Eraers, of St. Fron, Lavallard, of Paris, Zundel, of Strasburgh; the latter gentleman being reporter.

2d.—*Contagious Pleuro-pneumonia of Bovines*—The committee upon that question was composed of Messrs. Prof. Degive, of Brussels, LeBlanc of Paris, Prof. Putz of Halle.

3rd.—*Veterinary Education*. This important subject was left in the hands of Mess. Hugues, of Brussels, Prof. Muller, of Berlin, and Director Wurtz, of Utrecht.

4th.—The question of *Pulmonary Phthisis* was entrusted to a committee composed of Messrs. G. Fleming of London, Lydtin of Bade, and Van Hertsen of Brussels.

A fifth question—upon the French law prohibiting veterinarians selling drugs for animals placed under their care—closed the discussion.

The meeting proved a most successful and pleasant one, where so many men of different countries, of different habits and speaking different languages could gather together and come to work harmoniously for one object in view—the advancement and usefulness of the veterinary profession.

To Prof. Wehenkel a great part of this success is due, not only in the efforts which he must have made in bringing so many gentlemen together, but in the excellent manner in which everything was carried out, from the serious subject of discussion to the agreeable opportunities that was offered to the members of the Congress to visit and enjoy the beauties of that hospitable city and its surroundings.

In subsequent numbers, the questions proposed in such discussion will be presented to our readers, time and space not allowing it at present.

GOOD NEWS FOR VETERINARY STUDENTS.—At a recent meeting of the Council of the Royal College of Veterinary Surgeons, Professor Walley succeeded in carrying a motion to the effect that holders of foreign and colonial diplomas should not be called upon to undergo an ex-

amination in the subjects of the first and second examinations for the diploma, and that they should be eligible for the third (final) examination after studying for one winter and one summer session in any British veterinary college—the only proviso being that the time spent in obtaining the foreign or colonial diploma be equal to that usually spent in studying for the subjects of the first and second examinations in British schools, i. e., two winter sessions of twenty-two weeks and one summer of eight weeks duration.

HOSPITAL RECORDS.

REMOVAL OF THE LATERAL CARTILAGE IN TWO CASES OF QUITTOR.

By W. D. CRITCHERSON, D.V.S., House Surgeon Amer. Vet. Col. Hospital.

This operation was first performed by Lafosse, in 1750. At the present time, with but few exceptions, it is only employed after all other means of treatment have failed. But it is rapidly gaining favor with the profession, and will undoubtedly soon receive from the educated veterinarian the attention which it so justly merits.

"It is essential to avoid injury to the coronary band, the podophyllous tissue, the lateral ligament, and the synovial capsule of the articulation." The two operations which I have to record will illustrate the benefit derived—in one a chronic case, in the other, a case which was the result of a suppurative corn. In both, complications arose. In the first they were slight, while in the second case they were more serious.

CASE No. 1.—A gray mare, eight years of age, fifteen hands, one and one-half inches in height, and weighing about 1150 pounds.

This animal was brought to the hospital on the 16th of May, very lame on the near fore leg. Upon examination (the shoe had been removed) found an enlargement the size of a man's closed hand, situated on the outside of the coronet, in the region of the cartilage which limits the lateral and posterior portion of

the foot substance. There was a slight discharge from a granulating surface the size of a twenty-five cent piece, situated over the middle of the cartilage, and just above the coronary band. Upon introducing a probe, a fistulous track was discovered, leading downward, inward and forward, to the external surface of the cartilage.

History.—Had been suffering with the present condition for several months. Had been treated by a non-professional man with caustics, etc. He had also blistered the off fore coronet, so the owner said, "to make the animal stand upon the lame foot." The wall, bar and sole, at their point of union, had been pared down.

Diagnosis.—Cartilaginous quittor.

As the owner was desirous to have the animal treated, the operation for removal of the cartilage was advised, with the anticipation of the removal of the lameness, but the possibility of a return of mechanical lameness from increase of bony growth, following the operation. The day following, the owner notified Dr. Liautard to perform the operation without further delay. It was decided to operate on the 18th, at 2 p. m. Accordingly the animal was prepared for casting, which consisted in feeding only sloppy bran mashes through the day, with a small feed on the morning of the 18th, soaking of the foot in water, and no dinner. At 1 o'clock gave chloral $\frac{3}{4}$ i., and at 2 o'clock she was led out of her stall very lame.

Was blindfolded and cast upon the right side. The near fore leg was then removed from the hobble, and secured on top of the near hind leg, about midway of the metatarsal region. A stout cord was then secured around the leg, below the metacarpo-phalangeal articulation, in order to lessen the hemorrhage which would necessarily accompany the operation. The hair was then clipped, and a probe inserted into the fistulous track inward, downward and forward, for about one and one-half inches, when it reached the cartilage. With drawing knives, a triangular section of the wall was pared down very thin, extending obliquely backward and downward, from the anterior portion of the cartilage to the solar surface of the wall in front of its junction with

the bar. A double-edged sage knife was then used to make a superficial incision about one-quarter of an inch below the coronary band, extending from the posterior portion of the cartilage at the heel forward, thus preserving the coronary band intact, and preventing the possibility of a quarter crack following the operation. The same instrument was then inserted at the middle of the incision, with the point turned inward; and, while being carefully guarded by the hand, in order that the skin covering the parts might not be injured during the struggles of the animal, it was moved forward, backward and upward. The tissues covering the parts being thus divided, a right-hand sage knife was then introduced, and its edge carried upward till it reached the upper border of the cartilage. Then, by turning the blade over the cartilage, with its cutting edge directed outward, the point of the instrument being brought out first, the entire posterior portion of the cartilage was removed. The remaining portion was removed in the same manner. (The entire cartilage was undergoing ossification). This was followed by a slight amount of hemorrhage.

There was then discovered, upon introducing the probe, a track, commencing at the anterior third of the base of the cartilage, and extending downward, between the folds of the podophylloous lamina, to the lateral surface of the os pedis, which could be felt as a roughened surface under the probe. The congested and infiltrated lamina was cut away, exposing a piece of gangrenous tissue the size of a pea. This being removed, the roughened surface of the bone, due to the extension of the inflammatory process which had been going on in the cartilage, was observed. The bone was scraped, and a smooth surface of all the tissues involved having been obtained, the wound was dressed with carbolic solution (1 to 40) and oakum. A bandage with moderate pressure was applied, and over all a piece of sacking. The cord was then removed from the fetlock, also the hobbles, and the animal allowed to get up. She walked to the stall better than when led out for the operation. The foot was immediately placed in water, and remained in soak till the next morning.

May 19th, 8 o'clock, a. m. There is slight reacting fever.

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Temperature, $101\frac{3}{4}$ ° Fah.; pulse, 66. Is quite lame. Carbolized spray was used while the wound was being dressed. With the exception of a small piece of lamina at the anterior margin, the wound looks well. Was kept in soak during the day. Ate four quarts of oats and some clover. Towards night manifested considerable pain. Temperature, $103\frac{1}{2}$ °; pulse, 72; respiration, 42. Gave tr. opii, $\frac{3}{4}$ ii., and put her in a box stall, where she soon laid down, and remained quiet during the night.

20th. Temperature, $102\frac{3}{4}$ °; pulse, 72. Lameness about the same as yesterday. Appetite not as good. Remains down most of the time. Shall not dress wound to-day.

At 6 o'clock, p. m. Temperature, 102° ; pulse, 70.

21st. Temperature, 102° ; pulse, 70; respiration increased. Is not as lame as yesterday. Dressed with the spray. Wound looks well. Ate six quarts of oats during the day.

22d. Temperature, $101\frac{1}{2}$ °; pulse, 54. Dressing not to be disturbed.

23d. Temperature, 101° ; pulse, 48. Walks well. Dressed with spray. Wound looks well, but the discharge is slightly sanguineous. Appetite good.

25th. Temperature, $100\frac{1}{2}$ °; pulse, 45; respiration, 20. Wound dressed. There is a small piece of bone in the region of the basilar process, which is slowly sloughing.

26th. Slight febrile reaction, probably due to the irritation caused by dressing yesterday.

28th. Condition normal. The granulations look flabby and slightly unhealthy. The piece of bone, which was sloughing, was removed, and the wound dressed as before.

29th. Granulations are of a dark, venous red color. They are dressed with carbolized tr. aloes. Cicatricial tissue is rapidly being formed, and the wound is at least one-third smaller and, with the exception of a small track at the anterior margin, is doing well.

30th and 31st. There is a slight synovial discharge from the fistulous track, with a tendency to the formation of pus. Villates' solution injected, and the same carbolized dressing employed daily until the 9th of June. Then the wound was dressed

every other day. There was a slow but steady improvement up to the 18th. Then the shoes were put on, and the animal sent home, with orders for her to be sent back every second day to be dressed. At this time the track was not entirely closed, but the wound was granulating nicely.

The owner neglected to send her back as directed, the track closed up, and pus formed at the anterior portion of the coronary band. This was evacuated, and by careful attention and dressing for a few days, the track began to close up, and on the 23d of July all dressing was removed, and the case discharged, with no further treatment than to apply a little hoof ointment occasionally. Although there is an enlargement around the coronet, there is no lameness, and the animal is at present performing its work with no return of lameness.

CASE No. 2.—This was a bay mare 9 years of age, 16 hands 3 in. in height and weighing about 1500 lbs. Was first brought to the hospital in February. At this time she was very lame on the near fore leg, with an abundant discharge from a granulating wound situated in the region of the external lateral cartilage. Introducing a probe a track was discovered, leading downward and inward to the surface of the os pedis.

History.—During the winter she had a corn, which was neglected. Suppuration ensued and made its way out at the point mentioned. *Diagnosis*, cartilaginous quittor, with necrosis of the os pedis.

Injections of Villate's solution was recommended, and adopted, but no improvement. Iodo phenol was then given a trial, and under this treatment the discharge diminished and the lameness was removed to such an extent that the animal was put to work. But the relief was only temporary; the lameness returning and the discharge increasing.

Other caustics were then introduced into the track. Among them were crystals of carbolic acid and hydrate of potassium. No relief being afforded an operation was advised, and on the 5th of June she was brought to the hospital for that purpose. The shoes were removed and the feet poulticed and on the 8th at 12 o'clock, after being thoroughly prepared, she received chloral

5 iss. A little before 2 o'clock she was cast and secured, the *modus operandi* adopted being the same as in Case No. 1. The entire cartilage was diseased, and was removed, as well as two pieces of necrosed bone. An antiseptic dressing of oakum, saturated with carbolic acid solution, was then applied. During the operation, the animal struggled but very little, and during the dressing, and even after the hobbles were removed, she lay perfectly quiet, seemingly in a profound sleep, with eyes half closed, the muscles of the extremities relaxed and the breathing stertorous. The effect of the chloral was thus well manifested, the maximum effect of the drug in this case, as well as in several others which have been noted, being obtained in about two hours after the administration. In a few minutes she got up with very little assistance and the foot was at once placed in water.

June 9th.—Lameness, about the same as before the operation. Eating well and no reacting fever. Dressing not to be disturbed.

10th.—Dressed, with spray of carbolic acid solution applied. No suppuration.

11th.—Quite lame—anorexia. Temperature $101\frac{1}{2}^{\circ}$ Dressed with moderate pressure. The granulations are protruding at and around the margin of wound; being flabby and of a dark red color.

12th.—Lame and in some pain. Considerable amount of pus. Dressed with pressure from above to keep the granulations down. Gave tr. opii 3 ii.

13th and 14th.—The wound is doing well with the exception of a slight synovial discharge.

15th.—The synovial discharge still continues. There is also a track running downward and forward for about two inches. Villate's solution was injected. The lameness seems to be increasing. The wall below the coronary band was pared down in order to apply even pressure, and prevent the formation of a false quarter.

From this time up to the 21st there was gradual improvement, the synovia being stopped and the granulations becoming healthy in appearance. Walks with but very little lameness. As abrasions on her hips and sides were being formed she was kept tied up during the day.

From the 21st up to July 4th the wound was dressed every other day, Villate's solution being injected into the track, which remains about the same. Lameness increasing.

July 9th.—A piece of lateral ligament which has been slowly sloughing is removed.

July 24th.—The usual dressing has been continued all this time. The track now begins to close up and the wound is healing nicely. Lameness a trifle less. The walls of all four feet are rasped down.

31st.—The dressing is now removed and the wall below the coronary band thinned down, hoof unguent being applied to the parts.

Aug. 1st.—An astringent lotion is applied to a small tumor which has been formed on the elbow.

Aug. 3rd.—The shoes are put on, walks quite well.

Aug. 5th.—The tumor is opened and a tent of oakum coated with *aa* basilicon and populum unguent inserted, to induce suppuration.

Aug. 10.—Tumor healing. Patient discharged. Is not lame when walking but is when trotting, due to the formation of a ringbone, which will probably yield to treatment. Had the complications been less serious I think that the result would have been more satisfactory.

SOCIETY MEETINGS.

UNITED STATES VETERINARY MEDICAL ASSOCIATION.

The twenty-first annual meeting of this Association was held Sept. 18th, 1883, at the American Veterinary College. In the absence of the President, Vice-President Dr. L. McLean presided. The session of Comitia Minora was a short one, the only business coming before that body being the examination of credentials of candidates for admission to membership.

The regular session was called about one p. m., Dr. L. McLean again in the chair. Twenty members answered the roll-call. The order of business was changed to admit the following

newly-elected members : Drs. F. W. Huntington, W. H. Hoskins, R. Kay, W. C. Bretherton, W. D. Critcherson, Austin Peters, Dr. Cotton, E. A. McClellan, B. D. Pierce, F. E. Rice, Jos. Skally, C. T. Gaentner, Alex. Glass, J. C. Gardner, W. H. Pendry, Franklin J. Hanshew.

Drs. Huidekoper, of Philadelphia, and Burns, of Brooklyn, were present as visitors to the Association.

The committee appointed to investigate the value of the Pasteur method of inoculation not being present, the Association directed that their report be received at the semi-annual meeting in March.

The President thought it prudent to extend somewhat the labors of this committee, stating that it seemed almost unnecessary to investigate the Pasteur method, since it is so generally admitted that this is entirely successful.

The regular committees made no report. The Treasurer's report was read and adopted.

The following gentlemen made application for membership :— Drs. Theo. Outerbridge, Geo. H. Burns, W. H. Arrowsmith, H. W. Bath, E. Burkett, V. L. James and R. S. Huidekoper.

Election of officers being next in order, the following gentlemen were elected for the ensuing year :—President, W. B. E. Miller; Vice-President, W. J. Coates; Treasurer, Chas Burden; Secretary, Ch. B. Michener.

Dr. McLean, on leaving the chair, made a few well chosen remarks, as did also the newly elected President, Dr. Miller.

The following Board of Censors was then chosen : Drs. A. F. Liautard, L. McLean, Jas. L. Robertson, W. H. Hoskins, A. Lockhart and J. H. Stickney. The President appointed the following committees: *Library Committee*—G. P. Penniman, R. Kay. *Prize Committee*—L. McLean, A. Lockhart, E. Hanshew. *Intelligence and Education Committee*—W. J. Coates, J. Winchester, W. H. Hoskins. *Diseases Committee*—A. F. Liautard, C. P. Lyman, Jos. C. Bushman.

After considerable discussion, pro and con, the society, by vote called the attention of Comitia Minora to the advisability of holding the future annual meetings at some other than the usual

place. Dr. Robt. Harison reported a case in which he performed the Cæsarian operation on a cow, saving the lives of both cow and calf. The proper time to administer ergot was discussed, as was also whether or not to suture the uterus. Dr. L. McLean thought it strange that the temperature in this case had not risen higher than 103° Far.

Dr. J. Gerth, jr., favored the Association with a report of the recent outbreak of glanders in Newark, N. J., in which he censured the State Board of Health for not taking some steps to eradicate or quarantine the disease. The local Board of Health took the matter in charge and is rapidly getting rid of the disease. A profitable discussion followed on the subject of glanders, and particularly as to its latent form.

Contagious pleuro-pneumonia came up for its share of attention, and during the discussion inoculation was the principal theme, the different methods, manner of preserving virus, etc., being discussed by most of the members present.

After some remarks concerning septic and zymotic diseases the Association adjourned.

CH. B. MICHENER, Sec'y.

OHIO STATE VETERINARY MEDICAL ASSOCIATION.

The semi-annual meeting of the above society was held at the Union Hall, State Fair Grounds, Columbus, at two p. m. on the 5th inst. The President W. C. Fair, V.S., Cleveland, occupied the chair.

Prof. Townsend, State University, Columbus, and J. Hawkins, V.S., Detroit, Mich., President Michigan State Veterinary Association, were present.

The President called the meeting to order (and not being present at the previous meeting and organization of the society) stated his views fully as regards the objects, etc., of the society, which were heartily approved by all present. The minutes of the previous meeting were then read and confirmed.

The roll was called and the following gentlemen answered to their names:

Fair, Newton, Cotton, Moore, Waddel, Hillock, Chase, Butler, Derr, Wight, Labrou, Meyer, Howe, Crane, Groff, Blanchard, Charlesworth, Huntsberger, Stuart, Jeannin, Spidell.

Several applications for membership were then presented, which were referred to the committee on credentials.

The general business of the meeting was transacted, after which quite a lively discussion followed on diseases of the teeth, etc., by Drs. Cotton, Howe, Fair, Newton, Hillock and others. Dr. Cotton volunteered a paper for the next meeting on veterinary dentistry, etc.

Dr. Hawkins, President Michigan State Veterinary Medical Association, was then elected an honorary member of the Ohio State Veterinary Medical Association, and responded in a few well chosen remarks, thanking the society for the honor conferred upon him and closing with a cordial invitation to any or all to attend the second meeting of the Michigan State Veterinary Medical Association, which was to take place at Detroit a few days later.

Prof. Townsend was then called upon, but owing to the lateness of the hour declined making anything like a speech.

The society, after having spent a pleasant afternoon and a very interesting meeting, adjourned to meet again in Cleveland on the second Tuesday in January, 1884.

J. S. BUTLER, Cor. Secretary.

KEYSYONE VETERINARY MEDICAL ASSOCIATION.

The regular monthly meeting of the Keystone Veterinary Medical Association was held Sept. 1st, 1883. The Vice Pres., Dr. Zuill, called the meeting to order.

The minutes of the last meeting were read and approved.

From the committees came encouraging news, and an early recognition of our schools by the Jefferson Medical College is now looked for.

Dr. W. H. Hoskins proposed the names of Drs. R. S. Huidekoper and L. C. Campbell as members, which were received to be balloted for at the next meeting.

The essayist for the meeting was Dr. T. B. Rogers, his subject "Colic." This he handled with remarkable force and great minuteness. His points of differential diagnosis were many and very closely followed by the members. In colic, he said the head was turned to the sides; while in volvulus or intussusception it seemed to note a fixed point. Sweating in colic, he said, began at the regular points. The use of morphia he did not consider good, on account of it checking the peristaltic action of the bowels, and retarding the emptying of the same. From practical experience he found walking the cases of great service. In strangulation of a part of the bowel, the pulse was weak, sometimes intermittent, the animal gets down carefully; the hind legs are brought under him, and the fore limbs are bent at the knees and morphia does not relieve the pain. Many other important points were brought out, and in his means of diagnosis, he likewise showed an extensive and largely varied treatment. His success in these cases was quite remarkable.

Dr. A. Glass reported a case of pharyngitis, possibly complicated with a post-pharyngeal abscess.

After a vote of thanks being accorded the essayist, and the appointment of Dr. W. B. Miller as essayist for the next meeting, the hour for adjournment had come.

W. HORACE HOSKINS, Secretary.

PENNSYLVANIA VETERINARY MEDICAL ASSOCIATION.

The convention of veterinary surgeons of Pennsylvania, held at Philadelphia on Aug. 22nd, was opened by prayer by the Rev. Samuel Miller.

Dr. Jas. McCoart was then elected Chairman. Calling upon Mr. Daniels of the *Chicago Veterinary Journal*, he spoke of the work of conventions in the other States and what was hoped for from Pennsylvania. The necessity of wiping out quackery and the fact that \$119,000,000 worth of stock were still in the hands of empirics, he thought indicated that the time had come for legislation. Mr. Daniels was then appointed Secretary pro tem.

A call was then made for a committee on business, and the

society instructed the chair to appoint. The following members were asked to act on the same: Drs. Hooker, T. B. Raynor, Reinhart, John Berry, Sr., and Zuill.

The chair was also asked to appoint a committee on credentials and the following members were appointed: Chairman, Dr. W. Horace Hoskins; other members, Drs. G. B. Raynor, R. Gladfelter, Chas. Schaufler and J. W. Sallade.

The convention then took a recess until 2 p. m., when the committees would report.

At 2:15 the convention reassembled, and the Committee on Credentials rendered the following report.

1.—All members of recognized veterinary colleges, or of medical colleges, or who are present in person or letter, at this convention, and who have been in active practice for five consecutive years, may become members of this Association.

2.—After this date all applicants who have been in practice for ten years, may become members by answering a list of questions in veterinary medicine and surgery before the Board of Censors.

The committee's report was then received and a recess of fifteen minutes granted it, that all present might pass before them, in order to know the members, before proceeding to the election of permanent officers. Four men were rejected, as follows: Drs. Van Deveer, Hanly and Saulsbury, because they were from the State of Delaware, as the committee deemed it wise to draw the line strictly within the State of Pennsylvania. Dr. J. G. Post was rejected, because he had not been in active practice for five consecutive years. The report was accepted and the members elected by acclamation.

The Committee on General Business reported the by laws and named the following offices to be filled: President, three Vice Presidents; Recording Secretary; Treasurer and five Censors, to be elected for one year.

The election for officers resulted in the choice of Dr. J. W. Sallade of Reading, for President. For Vice Presidents, Drs. J. B. Raynor, Chas. Schaufler and Chas. J. Goentner. For Recording Secretary, Dr. R. Gladfelter, and for Corresponding Secretary, Dr. Alex. Glass.

The Board of Censors were then chosen, as follows: Drs. W. Horace Hoskins, Geo. B. Raynor, J. R. Keilor, W. L. Zuill and Chas. Schaufler.

The rules were then read and adopted, with few changes.

The subject of adopting a bill for presentation to our State Legislature at the next session, was considered and wisdom here counseled the convention's deliberations. After a vote it was decided to have a committee, appointed by the chair, to draft a bill and present a copy to each member, and it to be definitely considered at our next meeting. The chair appointed the following committee: Drs. Jas. McCoart, W. S. Hooker, W. Horace Hoskins, A. H. Lovett, A. S. Scheimer, Francis Givard and W. L. Zuill.

It was then moved and seconded to hold the next regular in Philadelphia, on the first Monday in March, 1884.

A vote of thanks was then extended to the retiring chairman and the committees of the day.

The Corresponding Secretary was instructed to notify all veterinary surgeons of the society's work and invite them to become members.

A motion was then made and carried that the chair appoint five members to read essays at the next meeting. Those called upon were Drs. Reinhart, Jas. P. Raynor, John Berry, Sr., Francis Bridge and C. J. Blank.

The Secretary was instructed to have five hundred copies of rules and by-laws printed for the use of members.

After a few remarks the convention adjourned.

W. HORACE HOSKINS, *Secretary.*

CORRESPONDENCE.

A CASE OF DYSTOCHIA.

Editor Review:—I desire to ask you a few questions in connection with a case of dystochia lately seen in my practice. I might say that since my graduation last spring, I have had numerous calls to assist animals during labor, but this case is something new to me.

About six weeks ago I was summoned to see a common-sized mare that was reported to me to be in labor. Upon inquiry, I ascertained that this was her third foal. She had not experienced any trouble during the previous births. The service this time, however, was by a large Clydesdale horse.

The mare was worked regularly every day, on a farm, and given a box stall at night. On the evening I was sent for, she, after working, was tied up in a single five and one-half foot stall. At 5 o'clock she was noticed in pain. The colt presented anteriorly, and all went well, until the hips became engaged in the pelvic inlet. No further progress could be made. I reached my patient about 8 o'clock. Found her down; pulse, 70, and weak; hurried respiration; temperature, 103° Fah. The straining was violent.

The colt, as stated, was partially out of the vagina, while alongside and beyond it was seen lying on the floor, the large colon, much increased in size and congested.

I gave no hope of the animal's recovery, but at the earnest request of the owner to "do something," I began preparing an opiate, while an assistant was constantly fomenting the distended colon. Before I was ready to administer any medicine, the mare overcame the men who were holding her, and attempted to get up. This she partially did, and fell back upon the bowel, rupturing it, and allowing the escape of its contents. I then directed that the mare be destroyed.

Upon post-mortem next morning, I found the colt to be very large, but not abnormal in any way. There was a laceration of the left lateral wall of the vagina, through which the intestine escaped.

I would be glad to know if the colon preceded the foetus, or if it could be passed out by the side of the foal during the severe straining of the mare? Also, what would have been the prospects of recovery could I have returned the bowel and removed the colt?

J. A. MYERS, D.V.S.

[We are of the opinion that the colon followed the foetus, after laceration of the uterus by kicks, or severe straining, and that there was no chance of recovery.—ED.]

VETERINARY MEDICINE AT THE SCHOOL OF APPLICATION,
FORT LEAVENWORTH, KANS.

In 1881 the Government established at this post a School of Application for cavalry and infantry. It consists of four troops of cavalry, five companies of infantry, one light battery of artillery, with their respective officers; one colonel commanding the school, three majors, and one lieutenant from each of the thirty-five regiments of the army.

The school was organized in the autumn of 1881 and terminated its first course in June, 1883. The very satisfactory examination passed by the first class gives great promise for the future of the institution, for the methods and details of instruction were of necessity largely experimental during the first two years, and experience will no doubt suggest such changes in the course of instruction as shall make this a model military school.

When the board of officers appointed for that purpose were considering the curriculum to be adopted, they decided to recommend a number of standard works on veterinary surgery as text books, but for reasons unknown to me no instruction has been given on the subject. Several members of the first class expressed a desire to receive practical instruction in veterinary medicine, and proposed starting a class for that purpose, but owing to numerous obstacles the project fell through.

That some of the officers of the school are in favor of establishing a course in veterinary surgery I personally know, while the advantages which would result are apparent to all who may give the subject serious consideration.

A large majority of the officers detailed for a course of instruction at the school are young men, most of whom have had but little experience in the use and care of animals. But, as officers, this responsibility will almost surely come to them in the near future, for if they belong to the cavalry or light artillery, care for the public animals of their troop or battery is a part of their daily duties. If they belong to infantry regiments, they are liable at any time to be mounted, and are always eligible candidates for appointment as acting assistant quartermasters—a position often entailing a responsibility for a large number of

public animals. Under such circumstances it will be seen how important it is for the young officer to know not only what constitutes proper hygienic conditions and surroundings, but what to do in an outbreak of serious disease. Such knowledge cannot be acquired at the usual schools of learning, while the school of experience is not an economical one for the War Department.

The opportunity is offered at this post now to teach in a practical manner, many of the important matters relating to veterinary surgery. Chief among these are the proper feeding, watering and grooming of the animals in health; the general care of the sick or nursing; how to treat the more common diseases, as colic, indigestion, influenza, pneumonia, etc.; how to care for wounds, sores, saddle galls, etc.; how to detect glanders and farcy, and what to do in case of an outbreak. Lastly, the student should be taught to know when a horse is properly shod, and how tell his age; what constitutes soundness, and how to inspect for the purchase of horses and mules, or for the condemnation of animals incapacitated for further service.

Such a course of instruction could, with little effort, be instituted here in connection with the school of application, for the post numbers nearly five hundred horses and mules, and can furnish material for a considerable number of clinics, which may readily be supplemented by a large variety from the city of Leavenworth. With an outlay of one hundred dollars or less the hospital and all necessary conveniences for teaching can be completed. In conjunction with the clinical teaching in the hospital, the farriers of the different troops here should receive instruction in the compounding and administering of medicines, how to clean and dress wounds, etc.

FORT LEAVENWORTH,
Sept. 17, 1883.

A. A. HOLCOMBE, D.V.S.,
Vet. Surgeon, Dep't of the Mo.

SUBCUTANEOUS INJECTIONS IN THE TREATMENT OF UMBILICAL HERNIA.

DEAR SIR.—When lecturing to the class at the A. V. C., February 1st, 1883, subject: "Umbilical Hernia," you spoke of a French veterinary surgeon's method, namely, that of using hypo-

dermically a saturated solution of chloride of sodium, and remarking at the same time that if any of us had occasion to employ the remedy you would be pleased to hear the result.

On May 28th Mr. L. Stephens, a neighbor, came to my farm for the purpose of breeding some mares, and in the course of his conversation mentioned that he had two shoats that were badly bursted on the belly, and wanted to know if I could help them any. He brought them over the same day. The pigs were about two months old, and weighed about sixty pounds apiece. The first one operated upon, (the sow), presented a tumor at the umbiliens shaped like an inverted corn ; its antero-posterior diameter at base was, as near as I could calculate with the eye, from five to five and one-half inches long, while the lateral diameter was something like four inches ; the apex dragged on the ground and had worn a hole very nearly through the skin. This abraded surface was about the size of a silver quarter dollar. The other, a barrow, (which had been castrated a few days before) presented the same appearance, only the tumor was a little larger in all its dimensions, and the point was worn to the size of a half dollar, and on pressure it was felt to be no thicker than tissue paper. In manipulating these tumors it was found impossible to return them to the abdominal cavity, but they were soft, very elastic and fluctuating on pressure. I proceeded to operate by inserting a hypodermic needle full length just under the skin from the base, obliquely and downwardly, into the (imaginary), four corners of the tumors, and injected into each of them two syringes full of the chloride of sodium solution. But three corners of the tumor of the barrow were injected, the fourth corner being occupied by the sheath and penis. It was thought an injection at this point might interfere with the animal's urinating. Eighteen days afterwards Mr. S. was at my barn again, and informed me that the tumors on both pigs were enormously swollen, and he believed that they would both die. To my question as to whether they ate and drank any, he replied that he could see no difference, but that he had not taken particular notice, for they were running with quite a number of other pigs about the same size.

On July 4th Mr. Stephens requested my presence on his farm to attend a cow that was sick, and improving the opportunity, I took a look at the pigs (it being then forty-two days after the operation.) The tumor on the sow had decreased to the size of a small hickory nut, but the barrow had not done so well. All of the pigs about a week ago had broken out of the pen, and the barrow getting into the garden, Mrs. S. put the dog after him. The pig ran and squeezed himself through the fence into the cornfield, and when Mr. S. found him the next day he was the worse for the wear. It is now the size of a large orange, with a well defined neck at the base. Previous to this it was no larger than the sow's was when I saw her.

Yours most respectfully,
T. C. WHITE.

BETTER CHOICE OF SUBJECTS FOR BREEDING PURPOSE.

DAYTON, Ohio, Aug. 5th.

To Prof. A. Lieutard:

SIR,—I noticed in the August number of the *Review* that a law has recently been passed prohibiting the breeding from diseased stallions.

I think this a good move in the right direction.

But my experience is that for every stallion affected with hereditary disease there are ten mares (in proportion to the number.) In this section if a man has what has been a good mare, as soon as she becomes useless for road purposes from navicular disease, ophthalmia, or anything that ruins her for road work, he breeds her.

It is a well known fact that there are many fine young horses that have a natural predisposition to navicular disease that on the slightest provocation is developed, when there is no other apparent cause than this hereditary predisposition.

The same can be said of many other diseases.

It is bad enough to have this condition of things in the human family, where it cannot be controlled, but the lower animals are in our power and can be controlled.

But I think it useless to commence at the little end of the horn.

Better take both ends and put the same restrictions on the mare as on the stallion.

Not only make a law but enforce it in both cases and improve instead of degenerate the horses of the country.

W.M. R. HOWE, V.S.

NEWS AND SUNDRIES.

DISCOVERY.—Formal announcement has recently been made of the discovery of the specific fungus of whooping cough. The cry is still "They come."—*Polyclinic Advertiser*.

PLEURO-PNEUMONIA.—The recent outbreaks of pleuro-pneumonia in Pennsylvania and Salem, Conn., show clearly that we are no nearer rid of the disease than we were five years ago.

FOOT AND MOUTH DISEASE.—Reports come to us very frequently of fresh outbreaks of foot and mouth disease in England. We are happily without a single known case in the United States.

CATTLE PLAGUE IN RUSSIA.—Reports from all parts of Russia, as late as September 7, state that the cattle plague continues its ravages with unabated fury. Over a million cattle have fallen victims of the plague within the past four years in European Russia alone.

A STEP FORWARD.—Dr. Detmers, the veterinarian appointed by the Government to investigate the trichina, has entered upon the discharge of his duties. He is located at Armour's, in Chicago, where every opportunity is afforded him for the pursuance of his investigations.—*Am. Cultivator*.

YARDS OF BUTTER.—In some parts of Spain, where butter is a rare article of merchandise, it is sold, not by the pound, but by the yard. It is brought from the mountain district in sheep's intestines, like sausages that are "tied off" with strings in lengths as required by the buyer.—*Druggist's Circular*.

GREAT FECUNDITY OF AN EWE.—A black-faced ewe in New

Galloway dropped six lambs on the 28th of May. Four of these were alive, but one died shortly after birth. The other three were still alive when last heard from. The same ewe gave birth to five lambs last year. We should not care, however, to own such stock, a single lamb to the ewe being better, though twins are passable from extra strong, hardy ewes.—*Am. Agriculturist*.

MANITOBA SPEAKS OUT.—A memorandum from the Deputy Minister of Agriculture for Manitoba, Acton Burrows, shows that the Board of Agriculture of that Province are alive to the necessities of the hour. At the Provincial Exhibition to be held this fall, no stallion will be awarded a prize which has not first been declared sound and free from disease by the Consulting Veterinarian of the Board, Mr. W. McEachran, M.D., V.S.

FEEDING SYPHILITIC INFANTS.—At L'Hôpital des Enfants Assistes in Paris, where many of the waifs and foundlings of the city are cared for, a unique feature has been introduced by M. Parrot, consisting of a nursing service for syphilitic infants. The nurslings draw their nourishment directly from the teats of the ass, to which they are presented five times during the day, and three times at night. They thrive under this treatment, and seventy per cent. live, while almost all formerly died when fed from the bottle.—*Boston Medical Journal*.

POISONING FROM DISEASED MEAT.—Dr. Ruysch reports the poisoning of about two hundred persons in the town of Heesch, Holland, who had eaten the flesh of a cow that had died in giving birth to a calf, also the flesh of a still-born calf, and of another calf. All who had eaten the meat were taken ill, and three died. They suffered from severe gastric symptoms, chills, fever, headache, and great depression, so that the physicians supposed at first that they had to do with an epidemic of typhoid fever. Others presented the symptoms merely of gastro-enteritis. The nature of the poison in the flesh could not be clearly determined, as none of the animals had died from an infectious disease.—*Centralbl. für Klin. Med.*

CREMATION.—The *Prairie Farmer* has often advocated the cremation of animals dying of contagious diseases. All investiga-

tions by scientists show this to be the only safe and common sense disposition of the carcasses of animals perishing from hog cholera, Texas fever, pleuro-pneumonia, glanders and the like. A case illustrative is in the discovery recently made by Dr. Freire, of Rio Janeiro. In examining the earth where the victims of yellow fever had been interred the year before, he found "myriads of microbii, exactly identical with those found in the vomitings of persons sick with yellow fever." These germs he has cultivated, and has reproduced the disease in animals, whose blood after death he found to be filled with the seeds of yellow fever in various stages of growth. If our farmers will act upon this suggestion to burn the bodies of animals that die of disease, in any form, they will save the lives of thousands of valuable stock.—*Prairie Farmer*.

AVENA SALIVA.—A French veterinary surgeon, M. A. Sanson, has recently communicated to the Paris Academy a very interesting note upon a new active principle which he has discovered in the seed of the oat, to which this grain evidently owes its stimulant or exciting action. The peculiar property has been, turn and turn about, asserted and denied, though the idea has been popular both in England and France for a long time. Professor Sanson determined to decide the matter by direct experiments carried out at the Agricultural School at Grignon. He undertook to solve the problem by testing the action of oats upon the nervo-muscular excitability of the horse, but has effected this by means of the graduated current of the electric apparatus of Du Bois Raymond, the instrument being used before and after a feed of oats. In this manner the author has arrived at the conclusion (after a considerable number of experiments) that oats really possessed a very remarkable exciting action, and the next thing to be done was to ascertain to what principle they owed this property. The author found that the pericarp, or envelope of the seed, contained a substance which is soluble in alcohol, and which possesses the property of exciting the motor cells of the nervous system. This substance, the existence of which has been suspected by some and denied by others, is not *vascilline*, as certain writers have pretended, nor any odoriferous and stim-

ulating principle of that kind; but a nitrogenous compound, which appears to be an alkaloid, and for which Mr. Sanson proposes the name of *avenine*. It has hitherto proved to be uncrySTALLizable. It is a granular substance, of a brown tint, soluble in alcohol with a pale amber color, and yielding to analysis a composition which corresponds with the formula: $C_{56}H_{24}NO_{18}$. Some varieties of oats contain more of this active principle than other varieties, but they all yield a certain quantity of it. The grinding of the grain and simultaneous exposure to the air appear to modify it somewhat. Its effects on the nervous muscular action of the horse have been studied, and it has been found that for every two pounds of oats consumed there is set up an excitation lasting for about one hour. There appears to be somewhat more than one per cent. present in the dried grain.—*Druggists' Circular*.